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ADMINISTRATION AND ORGANIZATION

OF SOVIET SCIENCE

(Selected Translations)

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FOREWORD

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ADMINISTRATION AND ORGANIZATION OF SOVIET SCIENCE
(Selected Translations)

[Following are selected translations concerning the administration and organization of Soviet science published in various Soviet newspaper sources. Complete bibliographic information accompanies each article.]

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A CITY OF SCIENCE GROWS IN SIBERIA

[Following is the translation of an article by M. Burenkov and V. Davydchenko in Izvestiya, 11 March 1961, page 1.]

The generous spring sun floods the streets of the city of the Siberian scientist, which was sprawled along the Obskoye Mou [Ob'Sea]. It is an unusual day at the little city today. N. S. Khrushchev, First Secretary of the Central Committee CPSU and the Chairman of the Council of Ministers USSR, arrived for a visit with the scientists and builders of the Novosibirsk scientific center. He was accompanied on his visit by: G. I. Voronov, Deputy Chairman of the RSFSR Bureau with the Central Committee CPSU; D. S. Polyanskiy, Chairman of the RSFSR Council of Ministers; L. F. Il'yichev and I. S. Pan'kin, directors of the various departments of the Central Committee CPSU; chief editors of Pravda -- P. A. Satyukov, Izvestiya -- A. I. Adzhubey, Sel'skaya Zhizn' -- V. I. Polyakov; and F. S. Goryachev, secretary of the Novosibirsk oblast committee CPSU.

On a call from the party, hundreds of scientists came to Siberia in order to establish the largest scientific center in the country there. Seven additional institute buildings are still covered with scaffolding, four of them will be occupied by the scientists this year. Twenty institutes and universities are already engaged in scientific research work.

N. S. Khrushchev and those accompanying him became acquainted at the little city with an exhibit of the first scientific discoveries made by the staff of the Siberian Department of the Academy of Sciences USSR.

M. A. Lavrent'yev, chairman of the Presidium of the Siberian Department, told of the golden mine of the little city -- the scientific cadres. There were 23 Doctors of Science at all of the institutes that were being created at the dawn of this new scientific center. At the present time there are 74 of them there. Youth is creating the institutes of the Siberian Department.

The exhibit contained displays in 22 different fields of scientific research. It is opened by the Institute of Mathematics with a computer center. A map shows the points with which the institute maintains scientific ties. A large new computing center will go into operation at Irkutsk this year with the assistance of the Institute. Six Mathematical Institutes will be organized in the cities of Siberia and the Far East.

Academician N. S. Sobolev told N. S. Khrushchev about the fundamental problems which are being resolved by the institute. He stressed that the attention of Siberian scientists is riveted to the various branches that have recently become developed -- mathematical logs, cybernetics and computer mathematics. The academician reported that the institute is engaged in developing systems designed to control the course of chemical reactions. This involves super-fast machines.

The guests showed considerable interest in the exhibits presented

by the Institute of Automation and Electrometry. Some 15 automatic instruments for various branches of production were designed and built there. K. B. Karandeyev, a corresponding member of the Academy of Sciences USSR and Director of the Institute states that: "Our Institute works out theoretical problems pertaining to the construction of computer-solution devices and cybernetic systems."

He pointed out a group of instruments for conducting aerial prospecting for useful minerals by using the method of an infinitely long cable. By comparison with the existing surface methods this instrument considerably increases the productivity of labor of the mining prospectors.

Two types of original amplifiers were developed at the Institute of Radio Physics, which are being used at factories in Moscow and Novosibirsk. The Institute maintains firm ties with the enterprises.

G. V. Krivoshchekov, a candidate of technical sciences, told the visitors that "Our instruments will allow millions of telephone conversations to take place simultaneously as well as over one hundred television programs."

The Institute of Nuclear Physics is directed by G. I. Bidker, a corresponding member of the Academy of Sciences USSR and a former student of Academician I. V. Kurchatov, who is now deceased. He spoke of an interesting instrument which, with the aid of neutrons, is used to investigate oil wells. More than that, the instrument permits the reactivation of old oil wells.

The Institute of Hydrodynamics, directed by M. S. Lavrent'yev presented original exhibits. A large group of theoretical scientists are working at the Institute. They succeeded in obtaining scientifically important results. A local mathematical industry is being created, and new computing machines are built.

The Institute concluded four agreements for the designing and industrial production of hydraulic drills. These tools provide a jet of water with a pressure of a thousand atmospheres and penetrates a crust of any density.

M. A. Lavrent'yev states that "We have arrived at a solution of the problem of a guided explosion."

The Institute of Experimental Biology and Medicine started its work in July of last year at the Siberian Department of the Academy of Sciences USSR. It is directed by Professor Ye. N. Meshalkin, a surgeon, who is well known in the country and the recipient of the Lenin Prize. He told N. S. Khrushchev and the guests that all types of surgical operations known in the USSR on the heart and the vessels are conducted at the Institute.

Important discoveries and scientific elaborations were accomplished at the Institutes of Thermal Physics, Mining, Geology, and Geophysics as well as those of Organic and Inorganic Chemistry and by other scientific research institutes of the Siberian Department of the Academy of Sciences USSR.

At the Biological Institute, Nikita Sergeyevich showed an interest in the methods used for destroying midges and mosquitoes in large areas by the use of aerosol sprays. This method is cheap and is very effective.

The Biological Institute produced bacteriological preparations for the extermination of the Siberian moth.

While inspecting the exhibits of the Economic Institute, N. S. Khrushchev remarked that the economists are still lagging in the resolution of large problems pertaining to socialist economy.

The guests were also shown new drafts for the additional buildings to be erected in the city of scientists. At the present time they are being executed with consideration for all of the suggestions made by N. S. Khrushchev during his first visit to the city.

N. S. Khrushchev together with those who accompanied him inspected the computing center of the Academy of Sciences USSR with interest.

In a discussion with the scientists N. S. Khrushchev mentioned a number of important tasks inherent in the further development of Soviet science and technology.

SCIENCE -- GOOD COUNSELLOR

[Following is the translation of an unsigned article in Izvestiya, 16 March 1961, page 1.]

A conference-seminar took place on 15 March. The session was opened by D. G. Kriger, deputy Minister of Sovkhozes of the Kazakh SSR. The presidium included M. S. Ol'shanskiy, Minister of Agriculture USSR; academician T. D. Lysenko; academician V. P. Kuzmin, a member of the Kazakh Academy of Agricultural Sciences; G. A. Nalivayko, director of the Altayskiy Agricultural Scientific Research Institute; as well as leading workers of the Ministry of Sovkhozes of Kazakhstan and scientists. The hall was filled with agronomists from kolkhozes and sovkhozes, directors of sovkhozes and trusts, secretaries of rayon party committees and chairmen of rayon executive committees.

G. A. Novayko started a competent and friendly talk regarding the main directions taken in the agriculture of the Tselinnyy kray and on methods for raising the fertility of the soils. The Altay scientist came to the capital of the Tselinnyy kray on the invitation of N. S. Khrushchev.

N. I. Chekanova, a worker at the Altayskiy Agricultural Institute, talk of the addition of beans to the crops sown in the kray, and spoke of the biological characteristics of this crop which is new to the agricultural workers of Siberia and Kazakhstan.

Academician A. I. Barayev, member of the Kazakh Academy of Agricultural Sciences and a director of the Tselinnyy Institute of Grain Farming told about measures used in the cultivation of the soil at the Tselinnyy Kray and about the implements used for such cultivation.

At the conclusion of the conference academician T. D. Lysenko gave a long speech.

SCIENCE IS BLOSSOMING IN SIBERIA

[Following is a translation of an article by B. Aberchenko and V. Molchanov in Pravda, 11 March 1961, page 1.]

NOVOSIBIRSK, 10 MARCH (Special Pravda Correspondent). New buildings are taking shape just outside of Novosibirsk, in a dense pine forest, which abundantly covers the shores of the Obskoye Morye. On the initiative of the Central Committee CPSU and N. S. Khrushchev personally, a new scientific center is being created here.

A staff of Siberian scientists is rapidly growing and taking form. In 1957 there were only 12 academic institutes in the entire boundless territory of Siberia, whereas today the Siberian Department of the Academy of Sciences USSR includes 40 scientific institutions, with 11 academicians, 35 corresponding members of the Academy of Sciences and 692 doctors and candidates of science. At the present time the Department amalgamates over 2,500 scientific workers.

N. S. Khrushchev, First Secretary of the Central Committee CPSU and Chairman of the Council of Ministers USSR, who took part in the conference of the leading workers in the agriculture of Siberia today visited the small scientific city of the Siberian Department of the Academy of Sciences USSR. G. Voronov, Deputy Chairman of the RSFSR Bureau of the Central Committee CPSU and D. S. Polyanskiy, Chairman of the Council of Ministers RSFSR came to the Siberian scientific center together with N. S. Khrushchev.

In the autumn of 1959 Nikita Sergeyevich visited the little city, met the scientists, and became acquainted with the building of the scientific center and with the beginning of its scientific activity. At that time the little city consisted of one institute and five dwellings. Now it is a real modern city with a population of 15,000. At the present time 11 out of the 14 institutes are active. The Institute of Geology and Geophysics, the main section of the Institute of Theoretical and Applied Mechanics and a part of the Institute of Nuclear Physics started their work.

Academician M. A. Lavrent'yev, Chairman of the Siberian Department of the Academy of Sciences USSR invited N. S. Khrushchev and those accompanying him into the very recently completed building of the Institute of Geology and Geophysics. A large exhibit showing the work recently completed by the scientific workers on the staff was located in one of its halls.

An animated discussion took place by the exhibit stands between Nikita Sergeyevich Khrushchev and the directors of the scientific research institutions. Academician M. A. Lavrent'yev and the directors of the institutes acquainted the guests with the results yielded by the work and the principal directions taken by scientific research. Along with the elaboration of important theoretical problems, research having considerable national economic significance is also conducted here.

Academician S. L. Sobolev, Director of the Mathematical Institute,

reported on the application of mathematical science to real life. A large computing center recently went into operation there, and has already completed some 20 projects, on assignment from industrial enterprises and scientific research institutions.

Academician M. A. Lavrent'yev entered the conversation.

"This is the same machine, he point out, "which you Nikita Sergeyevich, helped us create."

Nikita Sergeyevich observed the electronic computing machine in action.

The Institute of Automation and Electrometry is constantly strengthening its ties with the industrial enterprises of Siberia. The Institute concluded over 20 agreements for socialist cooperation with various factories in Siberia. A number of automatic measuring instruments for geophysical surveys in the search for minerals, some of which are already in serial production, are being developed by its laboratories. K. B. Karandeyev, a corresponding member of the Academy of Sciences and the Director of the Institute, reported that the staff of the institution resolved to complete the installation of the first automatic production line for the manufacture of electrolytic condensers by the time of the 22nd Congress of the Communist Party. All of these automatic installations increase the productivity of labor from five to six times.

G. I. Budker, a corresponding member of the Academy of Sciences USSR told about the basic problems which are being resolved by the staff of the Institute of Nuclear Physics. These tasks include the control of thermonuclear reactions, and new methods for the acceleration of charged particles. The scientist showed the guests one of the interesting instruments -- a well neutron generator. That instrument is lowered into a well to a depth of several kilometers and correctly determines the presence of oil and gas beyond the walls of the well.

The guests inspected the work accomplished by the Institute of Hydrodynamics. There was an original piece of equipment for the hydro-mining of minerals -- an impulse water thrower "IV-1" which ejects a stream of water under a pressure of a thousand atmospheres. The serialized production of impulse installations will permit the elimination of expensive and complex cutting instruments and explosives from the assortment of tools used by the miners.

The scientific workers of the Institute of Hydrodynamics, under the direction of Academician P. Ya. Kochina, have grappled in earnest with the problem of irrigating the dry Kulundinskiye steppes -- the granary of Siberia.

The guests showed considerable interest in material pertaining to the complex work accomplished by the chemists and biologists in the struggle against midges. The scientists prepared a chemical for the extermination of midges, which damage agricultural plants, and for the protection of forests. N. N. Vorozhtsov, Director of the Institute of Organic Chemistry and a corresponding member of the Academy of Sciences USSR showed those present a flask containing some clear liquid.

This is diethyltoluamide -- a substance which keeps away mosquitoes, black flies, horseflies and other harmful insects -- explains the scientist.

The chemical yields excellent results.

What is the stability of the chemical? asked N. S. Khrushchev.

Eleven or more hours, replied N. N. Vorozhtsov.

And what does it cost? asked N. S. Khrushchev.

In order to protect a person from insect bites for a period of one hundred hours, reported the scientist, it is necessary to use one ruble and 50 kopeks worth of the liquid.

This is of great practical significance, remarked N. S. Khrushchev. He recommended a detailed study of that problem, in order to establish the economic effectiveness of the chemical, and to thoroughly check its action not only under laboratory conditions, but principally on pastures and farms of the kolkhozes and sovkhozes.

A. A. Koval'skiy, the Director of the Institute of Chemical Kinetics and Combustion, and a corresponding member of the Academy of Sciences USSR, told about a powerful aerosol generator, which lays a large layer of fog in areas stricken with midges or other agricultural or forest pests. Such a unit, he explained, could cover an area of 10 thousand hectares per hour. By comparison with the aircraft method of spraying this unit raises productivity by 66 times and lowers the cost of spraying by 100 times.

"That is good"! remarked N. S. Khrushchev. He was interested in details pertaining to the operation and construction of the generator.

N. S. Khrushchev examined samples of the building materials that were exhibited at the Chemical-Metallurgical Institute stand.

The biological and medical science is under extensive development in Siberia. Professor Ye. N. Meshalkin, a recipient of the Lenin Prize, told of the noble work performed by the scientists who use heart and vessel surgery with success. The guests were shown a color movie film of a heart operation.

At the Department of Geology and Geophysics of the Institute, N. S. Khrushchev showed an interest in the samples of ore found in Siberia.

During N. S. Khrushchev's last visit to Novosibirsk, Academician A. A. Trofimuk gave a scientific prediction:

We are certain that there are large deposits of oil and gas in the area of the North Siberian lowland. We will place them at the service of the people.

The predictions made by Soviet scientists came true; A. A. Trofimuk reported to the guests that a large new deposit of industrial oil was recently discovered by the geologists in the Tyumenskaya oblast.

At the stand set up by the Institute of Economics and the Organization of Production, N. S. Khrushchev made a statement directed at the workers engaged in economic science. Many economists maintain weak ties with the kolkhozes and sovkhozes; the dissertations and books do not always raise and develop the more urgent practical problems. In particular the economists fail to extend satisfactory assistance to the kolkhozes and sovkhozes in the working out of problems pertaining to the application of a system of supplementary remuneration of labor for the overfulfillment of assignments in agriculture and cattle breeding, and in the realization of the principle of material interest.

G. A. Prudenskiy, Director of the Institute and a corresponding member of the Academy of Sciences USSR states that the workers of the Institute will make the necessary deduction from that statement and will proceed to consolidate the ties between economic science and agricultural production, and will extend daily assistance to the kolkhozes and sovkhozes in the solution of the nationwide task of creating an abundance of products in the country.

"I wish you success!" said N. S. Khrushchev.

Material pertaining to the work accomplished by the scientific research institute for Community Bases, which was organized in the Gorno-Altayskaya Autonomous Oblast, attracted attention. It includes 80 engineers, economists, enterprise directors, party workers and other specialists.

N. S. Khrushchev was interested in the progress of building at the scientific city. N. M. Ivanov, director of the "Sibakademstroy" administration and A. S. Ladinskiy, chief engineer of the Administration of Capital Construction reported to N. S. Khrushchev about how his advice and comments, made during his last visit, are being fulfilled. They talked about the development of industrial building methods. A block of buildings out of pre-assembled reinforced concrete elements has been started; the assembly of the first large panel house is nearing completion.

N. S. Khrushchev's visit to the little scientific city brought about considerable enthusiasm among the Siberian scientists, and inspired them towards new creative plans, further search and perfection.

In his conversation with the correspondents from Pravda, M. A. Lavrent'yev stated:

The visit of N. S. Khrushchev is a vivid illustration of the concern shown by the Communist Party and the Soviet Government for the Soviet scientists, for the development of science and the productive forces of Siberia and the Far East. His words and remarks will perform a great organizational and inspirational role. The scientists of Siberia, just as the rest of the Soviet people, are full of enthusiasm and energy, which they will devote to noble labor of building a happy future.

Academician S. L. Sobolev talked excitedly about how N. S. Khrushchev, through his advice and support, poured fresh strength into the hearts of the Siberian scientists. I was very glad, he continued, that I had the opportunity to tell our dear guest about the development of modern mathematics, about how it becomes more and more a part of life, a part of industrial and agricultural practice. It is a joy to realize that the scientist mathematicians, along with the workers of our entire country, are actively participating in the resolution of the most important national economic tasks and are assisting the Soviet people in their struggle for the consolidation of the power of our Homeland and for the blossoming of the wonderful Sibirskiy kray.

VISIT OF N.S. KHRUSHCHEV WITH THE SCIENTISTS OF KAZAKHSTAN

Following is the translation of an unsigned article in Pravda, Moscow, 20 March 1961, page 1.

ALMA-ATA, 19 March (Special Pravda correspondent). Comrade N. S. Khrushchev, First Secretary of the Central Committee CPSU, Chairman of the Council of Ministers USSR met with the scientists of Kazakhstan today. He visited the Academy of Sciences Kazakh SSR.

The Kazakh scientists greeted the dear guest in a warm and friendly manner. Academician K. I. Satpayev, president of the Academy, acquainted N. S. Khrushchev with one of the fundamental tasks occupying the scientists of the republic -- a chart showing the probable location of metalliferous deposits in Central Kazakhstan, and spoke of the work accomplished in its theoretical substantiation. 390 new deposits of minerals were discovered in Central Kazakhstan during recent years; 370 deposits were discovered in rayons which were pointed out on the chart mentioned above.

N. S. Khrushchev showed an interest in the ores from the Lisakovskoye deposit, which will be assimilated during the current seven year period. The metallurgical enterprises located there will be able to produce not only metal but phosphate slag for the fertilization of fields.

N. S. Khrushchev examined the exhibit which reflected the scientific achievements in the field of geology, water resources, power engineering, mining, chemistry, physics, automation and a comprehensive mechanization of production, and showed the participation of scientists in the fulfillment of the Seven Year Plan. Commentaries were furnished by Academicians Sh. Ch. Chokin, A. B. Bekturov, A. Ch. Musin, the director of the Mining Institute, and by scientific workers. 54 scientific research institutions of the Academy are participating in the investigation of basic problems associated with the further development of the economy and culture of the republic. Hundreds of doctors and candidates of science are engaged in it. Investigations are carried out under the terms of agreements with sovmarkhozes and individual enterprises developed on a wide scale.

Academician-Secretary Sh. Ch. Chokin acquainted N. S. Khrushchev with work accomplished on the most important problems associated with the building of large power and hydrotechnical projects at the power engineering and water resources stand. The scientists of Kazakhstan substantiated the need for a 500 kilometer long canal from Irtysh to Karaganda, and provided design computations for it. N. S. Khrushchev pointed out the great role performed by the canal in the water supply for Central Kazakhstan. The construction of the Kapchagayskaya Hydroelectric Power Plant on the Ili river will also be of considerable importance. This will permit the irrigation of approximately half a million hectares of land.

N. S. Khrushchev manifested interest in the new technology for the underground mining of ore at the Dzhezkazanskiy mine, which was proposed by the Mining Institute. A. Ch. Musin, a corresponding member of the Kazakh Academy of Sciences reported that it is planned to conduct an

expanded scientific session of the Academy on the development of Bol'shoy Dzhezkazgan.

In his conversation with the scientists N. S. Khrushchev pointed out the problems which should occupy the Academy.

N. S. Khrushchev also received some presents: a collection of ore samples of some of the most important minerals of Kazakhstan, two volumes entitled "Science of the Kazakhstan SSR," a book entitled "The Science of Kazakhstan Over a 40 Year Period," and a pocket air ionizer constructed by the Kazakhstan scientists. N. S. Khrushchev sincerely thanked the scientists and wished them new successes and further creative activity.

While visiting the Academy of Sciences Kazakh SSR, N. S. Khrushchev was accompanied by D. A. Kunayev, Secretary of the Central Committee of the Communist Party of Kazakhstan; I. Sh. Sharipov, Chairman of the Presidium of the Supreme Soviet Kazakh SSR and by S. D. Daulenov, Chairman of the Council of Ministers of the Republic.

Today N. S. Khrushchev also visited the "10 Years of Kazakhstan" House of Rest which is located close to Alma-Ata in the Medeo High mountain area and talked to some of the people from the various rayons of the republic who were taking their rest there.

INSTITUTE FOR COMMUNITY BASES

Following is the translation of an unsigned article in Pravda, 8 April 1961, page 4.

The Presidium of the Siberian Department of the Academy of Sciences USSR examined the problems pertaining to the creation of a community scientific research institute for the study of productive forces of the Gorno-Altayskoy autonomous oblast.

Agronomist T. P. Barabash, Deputy Chairman of the Scientific Council of the Community Institute, who appeared at the session of the presidium, told about its first projects.

After studying the utilization of the suburban land areas around Gorno-Altaysk, the public spirited scientists introduced a suggestion to liquidate the small and unprofitable subsidiary farms situated in that area, and to transfer the land occupied by them to the Chuyskiy sovkhos to be used for planting highly profitable medicinal plants and hops.

Approximately four million hectares of the oblast are covered with difficult rocky terrain, undergrowth, and swamps. It would appear that such areas could not be used. The public spirited scientists established that the "mountain virgin land" contains approximately one hundred varieties of honey plants. This area has exceptionally favorable conditions for the development of apiculture and the production of honey.

The institute compiled a comparative inventory of the land areas, and suggestions designed to improve the fodder base of community cattle breeding were introduced.

The Presidium of the Siberian Department of the Academy of Sciences USSR approved the position of the new Community Institute and resolved to extend comprehensive assistance to it.

UNIVERSITY OF TECHNICAL AND ECONOMIC KNOWLEDGE

Following is the translation of an unsigned item in Ekonomicheskaya Gazeta, 25 January 1961, page 2.

The University of Technical and Economic Knowledge opened at Lipetsk.

Approximately 500 directors, chief engineers, shop foremen, leaders of party and trade union organizations of enterprises and building sites of the city are attending four of the departments -- the metallurgical, machine-building, building and general economic departments. The curriculum of the university incorporates the pressing problems of technical progress and economy in the various branches of industry. The lectures are read by experienced specialists from Moscow, Lipetsk and from other cities.

FRUITFUL UNION

Following is the translation of an article by M. Baybikov in Ekonomicheskaya Gazeta, 25 February 1961, page 3.

In March of 1959 the Leningrad Institute of Water Transport Engineers (LIIVT) (Leningradskiy Institut Inzhenerov Vodnogo Transporta) was merged with the Central River Fleet Scientific Research Institute (TsNIIRF) (Tsentral'nyy Nauchno Issledovatel'skiy Institut Rechnogo Flota).

What led to this merger?

As pointed out at the June (1959) Plenum of the Central Committee CPSU many of the research institutes and higher educational institutions have weak ties with industry; their scientific work is conducted without due consideration for practical requirements. One of the principle inadequacies is the poor coordination of scientific research work done by institutes and higher educational institutions in the same general field, which leads to a lack of concordance in the development of some of the more important problems, to a waste of effort, and a drop in the level of the scientific work, as well as a prolongation of time required to conduct such research and a delay in the implementation of the results into practice.

Such inadequacies occurred at the Leningrad institutes named above. The experience of almost two years of work at LIIVT indicated that as a

result of their amalgamation the level of scientific work rose considerably, and the quality of educational-training work and the institute's ties with industry improved.

Prior to the merger the Leningrad Institute of Water Transport Engineers included a number of highly skilled scientific cadres but they were scattered throughout many departments. The majority of the departments did not have the necessary laboratory facilities to conduct extensive scientific research as a result of which the scientific work was being conducted in an unsatisfactory manner. At the same time the Central River Fleet Scientific Research Institute (TsNIIRF) had well equipped laboratories but had a lack of highly skilled scientific cadres which limited the possibilities for scientific activity by that institute.

The Institute of Water Transport Engineers had 34 general educational and professional departments. Some 217 professors and instructors were working there. In addition to that 59 persons were working in the scientific research sector.

TsNIIRF had six scientific research sections, five sectors and 13 laboratories, which had a staff of 190 scientific collaborators; there were only 23 candidates of science in that group and not a single doctor of science.

The merger afforded an opportunity to concentrate the scientific forces in expanded departments based on modern laboratory facilities and made them capable of resolving most important, complex problems involved in the development of river transportation. The departments were expanded primarily as a result of the inclusion of workers from laboratories and sections of the scientific research institute into their staffs. In that manner the merger did not result in a formal amalgamation of the research institute with the educational institute but led to an organic, creative merger of the departments, sectors and laboratories.

An important role in this was performed by the party organizations of the institutes which manifested an active participation in the resolution of the most important problems pertaining to the merger, and primarily of problems relating to the proper assignment of the cadres.

As an example we can cite the department of shipboard power plants. Prior to the merger it consisted of three persons and had no laboratory facilities whatever. The department conducted no scientific research work on specifications from the industry and water transport; its ties with industry were limited to sporadic conferences. At the present time the staff of that department includes 45 persons including 16 professors, doctors and candidates of technical sciences. The department has several laboratories at its disposal. The extent of the research conducted by the department on specifications from the Ministry of the River Fleet and the sovnarkhozes is estimated at two million rubles. Problems pertaining to perfection of the technical exploitation and modernization of the fleet, the comprehensive automation of power plants, improvement of the labor process and a rational utilization of fuel and lubricants are studied there. Work for the creation of a gas turbine plant for vessels with underwater stabilizers.

The Department of Shipbuilding Theory was also consolidated. Its workers, along with the builders of the TsPKB [abbreviation unknown] of the Ministry of the River Fleet are conducting research for the creation of ships travelling on air cushions. A new hydromechanical system has been developed which permits an increase in the speed of the ships by from 10 to 12 percent.

On the whole the Institute of Water Transport conducted a volume of scientific research work during 1960 which was one and a half times greater than the volume of work that was conducted by both institutes during 1958, prior to the merger. The scope of scientific research work done on a basis of economic agreements more than doubled.

There was not only an increase in the volume of scientific investigations but the nature of investigations also changed. It became possible to conduct scientific research work in the field of large projects, which is of great national economic significance. In 1960, for instance, work in the elaboration of new directions for the further development of the transportation fleet was completed. On the basis of the research which was conducted a typical set of self-propelling and non-self propelling vessels for the transportation fleet were developed for 1960-1975, which were approved by the staff of the Ministry of the River Fleet.

The Institute's ties with industry in the field of creative collaboration expanded and became consolidated. Its staff concluded comprehensive agreements for creative collaboration with the administrations of the Northwestern and Belomorsko-Onezhskoye shipping lines. The collaboration agreement between the Institute and the Northwestern shipping line, for example, was concluded for the duration of the Seven Year Plan and is aimed at assisting the shipping line to fulfill the Seven Year Plan ahead of schedule for all indices on a basis of full scale mechanization and automation of production, and the implementation of progressive technology. The conclusion of such a comprehensive agreement became possible only as a result of the merger of the two institutes.

The production basis of the amalgamated institute expanded considerably due to the conversion of a plant for its use in 1960, to enable it to conduct experimental projects. As a result the implementation into production of the new technology developed by the institute was considerably accelerated.

The merger also reflected favorably on the training of young specialists. The number of hours of independent work by the students in the laboratories was increased. Advanced students are drawn into scientific work of the departments. 180 advanced students are working in the laboratories as members of the staff.

The personnel of the institute fulfilled the planned projects of scientific-research work for the second year of the Seven Year Plan as well as the socialist obligations that they assumed, ahead of schedule. At the same time there are a number of inadequacies that must still be overcome; it is especially necessary to reinforce certain departments and to expand research in the field of fleet economy, as well as in the field

of building, reconstruction and the utilization of ports.

The Leningrad oblast committee CPSU approved the positive experience gained by the amalgamated Institute of Water Transport. The higher education institutions and the scientific research institutes were advised to study that experience.

It would be feasible if the Ministry of Higher and Secondary Specialized Education USSR would also examine the experience gained by the LIVT in order to disseminate it and to develop a system of amalgamated institutes.

The decisions of the June Plenum of the Central Committee CPSU and the law regarding the consolidation of the ties between school and life recognized the amalgamation of certain scientific research institutes engaged in generally similar fields with higher educational institutions as feasible. The experience gained in the work of the LIVT conclusively substantiated the necessity for such mergers and deserves dissemination.

FROM THE INSTITUTE TO PRODUCTION

Following is the translation of an article by G. Karpenko in Ekonomicheskaya Gazeta, 1 March 1961, page 3.

The Institute of Machine Engineering and Automation in L'vov is a young scientific institution of the Academy of Sciences Ukrainian SSR. Its program, however, already includes a number of serious scientific investigations.

A series of automatic instruments, for example, were created for use in prospecting for minerals. Within the past two years the Institute obtained 40 copyright certificates for instruments which were fully developed by our colleagues to a point where they were industrially feasible.

The tempos of technological progress, as commonly known, depend to a great degree on the speed with which scientific investigations are completed and the results implemented into production. We therefore spare no energy in our search for methods and means for accelerating research. This search is not in vain. We became convinced in practice that under certain circumstances it is possible to decrease the length of time presently required to conduct the necessary research in the building of a model, of an instrument, its multi-lateral testing, perfection and, finally, its implementation into the national economy.

A rational distribution of forces and a proper organization of labor at the Institute are quite conducive to that. We are concentrating all of our energies on the solution of perhaps small, but important problems. There are over 350 workers at the Institute. They are usually working on an average of six to ten different projects, i.e., each project occupies from 30 to 50 persons. I know of cases where at certain institutes two

or three persons are engaged in a project. It has become a standing rule with us that the final product of a scientific investigation is an operating model of the instrument, brought to a point where it becomes an industrial sample, with all of the scientific computations and explanations. Working blueprints are not prepared and the technological methods of production are not elaborated. The fact is that the plants where our instruments go into production, always rework the technological methods of production and sometimes even revise the construction of the instrument itself. Must time then be lost at the institute in the preparation of technological schematics?

We devote considerable attention to the proper organization of labor. Here is how this matter is organized in our case. Highly skilled mechanics who are capable of building "in metal" are attached directly to the scientific workers. They are given the developed blueprints after they are thoroughly worked out. The mechanic, along with the scientific workers, builds the parts according to the blueprints and creates the instrument, but, as already stated, without working blueprints or technological elaborations. Occasionally the search for a part requires the construction of several groups of similar parts out of which the best components are selected, arranged, tested, perfected and a model is then made and released for production.

Concern for the mechanics is all pervasive. In our project plans they are equated to the scientific workers. Their work places are next to the scientists. A portion of their worktime is spent in the workshops of the Institute. The workshops at the Institute is a comprehensive collection of tools. A highly skilled mechanic die-maker is responsible for them. Five years of experience leaves no doubt that the workshops are capable of functioning properly even without a specialized staff.

The role of the experimental-assistance personnel is rather important, particularly that of the construction mechanics in accelerating the tempos and lowering the cost of the scientific investigations. It is specifically because of them that we are managing without expensive and labor consuming building of instruments and means for automation, built on both radio and electrotechnical as well as on purely mechanical plans. Unfortunately, however, the problems associated with the training and particularly with the remuneration of these specialists are still not resolved.

In general the training of the auxiliary personnel must be on the same level with the tasks associated with the development of the scientific workers. And in practice? Without going into detail we will state that each institute does whatever it feels is necessary, and selects the staff of auxiliary workers, from among whoever is available. It is very difficult to attract experienced mechanics: we pay them less than they would get in industry.

Strange as it may seem the principle governing the remuneration of labor at the institutes is in direct contradiction to life, where money should be dealt out not for knowledge but for the ability to apply such knowledge. There is apparently some sense in extending the rights of a

director of an institute and to permit him to establish higher rates for mechanics who prove to be able constructors.

The problem pertaining to the remuneration of the labor of scientific workers is also awaiting a solution. It turned out that those who are farthest removed from production found themselves in the most advantageous position. The middle position is occupied by the scientific workers from the research institutes. The highest rates are found at the higher educational institutions. A doctor of science, however, if he found himself in the position of a director of a plant laboratory, would be getting three to four times less than if he was the Chairman of a university department. Is that proper? Of course not.

In our opinion the very important matter of training cadres, which is what the higher educational institutions are doing, would not suffer at all, if the remuneration of the workers of these institutions would exclude extra pay, particularly the time and a half in overtime for assistance to industry. If we speak honestly -- there is nothing to reward them for: the scientist assists industry within the limits of his usual workday and not so much personally as through the efforts of his students. Moreover, in aspiring to acquire the funds to pay their staff time and a half, the individual institutes conclude contracts with the enterprises and sovmarkhozes for orders which require no scientific investigations which could have been delegated to the technological-planning bureau of the plants or to the local scientific-research institutes. The latter could have accomplished the work cheaper and in a simpler manner.

Let our colleagues at the educational institutions understand us correctly: we are certainly not attempting to limit their assistance to industry. Let them extend more aid, and attract advanced students in a bolder manner.

To increase the contributions made by science to the national economy means proper organization and an implementation of scientific investigations. In our Institute this is achieved by means of economic agreements, agreements of socialist cooperation with the industrial enterprises in line with the state budget. Little effort is required for the implementation of investigations completed on the basis of economic agreements.

The socialist cooperation between factories and institutes is interesting and fruitful. The projects are outlined by the enterprise and executed by the scientists with the participation of those in production. The Institute accepted no payment for that. In that manner we developed an automatic control for oil pump blades for the L'vov automatic loader plant, and for the instrument plant, an automatic control for the threading of taps. In line with socialist cooperation, we carried out research in the sulphation of parts with the assistance of radioactive isotopes, etc.

The matter is somewhat different with the implementation of scientific investigations, accomplished with the assistance of budgetary funds. In those cases it is very difficult to get by without your own experimental plant. The predominant majority of scientific research institutes and the higher educational institutions do not have such plants. That is why we are forced to spend time and money in search of such a base in Moscow,

Leningrad, and for certain projects, at Barnaul as well.

It is hardly necessary to have experimental plants at every institute, but at large scientific centers, they are definitely a necessity. It would be possible to manufacture products on a small serialized scale, the models for which were created at the institutions. The students and the instructors at the local higher educational institutions could undergo their practical training there.

The coordination of scientific research work is also far from satisfactory in our case. As a result of that, the effectiveness of such work is decreased. As far as the matter of who is to direct such coordination is concerned, there can be only one opinion in that case: such affairs must be guided by outstanding scientists -- active members and corresponding members of the republican and union academies.

Changes are also apparently needed in the regulations of the Academy of Sciences, by supplementing them with a requirement that the active members and corresponding members provide the republic with scientific guidance in the field in which they were elected to the Academy.

Here we have not touched upon problems pertaining to the growth of productivity of the scientists' labor, but if the proper order is brought about, even if just in the oblasts mentioned in this article, the contribution of the Soviet scientists to the building of communism will increase immeasurably.

TO STRENGTHEN THE BOND BETWEEN SCIENCE AND LIFE

Following is the translation of an article by A. Andryushchenko in Ekonomicheskaya Gazeta, 3 March 1961, page 3.

"Where there is life there is science. It is impossible to separate life from science or science from life." These remarkable words spoken by N. S. Khrushchev at the June (1959) Plenum of the Central Committee CPSU, precisely define the nature and areas of activity of our scientists.

Scientific work at our Saratovskiy Polytechnical Institute is developing in close contact with life and industry. In accordance with the decisions of the 21st Congress CPSU and of the subsequent Plenums of the Central Committee of the party we have a comprehensive plan for research and the development of our own laboratory facilities. The institute established business contacts with a number of sovnarkhozes of the country.

The cost of expanding scientific work of the institute was repaid a hundred fold. The volume of research work increased almost twelve times.

The Saratovskiy sovnarkhoz devotes considerable attention to the scientific activity of the higher education institutions and extends its assistance in the area of the most outstanding scientific-technical problems through the technical-economic council and through its scientific research section, which includes all of our scientific workers. The sovnarkhoz

finances and materially supports the joint investigations conducted by the scientists and production workers and coordinates their efforts. Branch laboratories for the automation and mechanization of production processes in machine building and general building were created at the Polytechnical Institute at the expense and within the limits available to the sovmarkhoz.

Of course there are certain inadequacies and unsolved problems in the collaboration of the scientists from the institute and the enterprises of the economic rayon. However much has been achieved that is of a positive nature.

The associated activity of the scientists and production workers in the combined brigades, for instance, is conducive to an acceleration of technical progress. The Department of Thermal Energy at the Institute and the administration of the Saratovskaya Thermoelectric Power Plant No 2 organized a combined brigade, which included engineers, scientists and students of thermal energy, a total of 70 persons. The brigade was split into six groups. Each group studied a specific scientific-technical problem designed to raise the economy and the productivity of steam boilers and turbines at the plant. The group headed by Assistant Professor comrade Polyakov and by the director of the boiler workshop, engineer comrade Lebedov, through its combined efforts managed to raise the productivity of the boilers by 30 tons of steam per hour.

Along with the workers engaged in production the scientific departments of thermal energy are presently developing methods for determining the most advantageous parameters (pressures and temperatures) and thermal systems for steam-turbine electric power plants of considerable power.

At the request of the Kharkov'skiy turbine factory a computation method was developed and on its basis the most advantageous pressures for the intermediate heating of steam for steam turbines with a capacity of 300 thousand kilowatts at 300 atmospheres of pressure at 650° Centigrade were calculated.

At the present time the scientists of the Institute, in collaboration with the Kharkov'skiy Turbine Plant are investigating new thermodynamic cycles and thermal schemes of combined steam-gas installations with a unit capacity of from 300 to 500 thousand kilowatts. Comrade Shubenko-Shubin, the chief designer of the plant, and a corresponding member of the Academy of Sciences Ukrainian SSR, comrade Larshov, a post-graduate student at our Institute and comrade Kaplan, a plant engineer, take an active part in the research work.

The new cycles and thermal schemes developed by us provided a possibility for raising the coefficient of useful operation of the thermal electric power plants from 45 to 48 percent. In other words it will be possible to achieve an economy of fuel amounting to 10 to 15 percent as compared with the most advanced installations with a simultaneous decrease in their cost of from 20 to 30 percent. If it is considered that within the next several years thermal electric plants with a combined power of hundreds of millions of kilowatts will be constructed, it becomes clear that the introduction of such installations into production may save the government billions of rubles.

The Department of Automation and Remote Control Mechanics of the Polytechnical Institute in cooperation with the engineers and workmen of the Saratovskiy Bearing Plant is conducting investigations aimed at the creation of automated induction installations for the tempering of the bearing raceways. An industrial induction furnace has already been built. The tests have indicated that the conversion of the heating of railroad car bearings to an induction method instead of the resistance furnace heating method that is presently used at the plant, yields technical-economic advantages. The productivity of an induction furnace is almost 2.5 times greater than that of the resistance furnace that is presently operating at the plant, and the expenditure of energy for the production of a single raceway decreases almost twofold. The rate of induction heating is such that it becomes possible to incorporate the entire process of thermal processing into the general technological flow. Thereby the entire process of thermal treatment will become automated.

An extremely effective method of cooperation between the scientists and those in production in the conduct of research is a coordination among the departments of the Institute with the plant laboratories. Our departments of metal technology, maintenance and other departments are engaged in combined work with the plant laboratories.

The laboratory for the automation of technological processes in machine building and metal cutting at the Institute is completing the production of a plan for a complex automatic sector for the manufacture of a non-sliding axle for the "DT-54" tractor at the "Serp i Molot" Saratovskiy plant. After receiving a working drawing from the institute, the staff of the plant recently completed the building of the first stage of the automatic line in metal.

Important scientific projects in the field of construction are also executed by the scientists at the institute, such as a new method for the computation of reinforced concrete blocks for the highway portion of the bridge by means of a collapsing forces. Its implementation, as substantiated by experience, permits a fivefold or greater saving in armature steel without an excessive use of concrete. Investigations in the creation of highly durable silicate concrete without autoclaves or cement out of local raw material as well as component parts out of it and a new thermal insulation material.

It is natural that by developing and deepening the ties with production, the scientific workers of the institute are furnishing constantly more justification for their moral right to say to the student: "Do as I do."

We must teach the students to carry out scientific work, to inculcate them with love for scientific investigations. This cannot be done by lectures alone. It is necessary for the students to participate in scientific experimental-production work; it is necessary for them to see the useful results of such work and to be proud of their contribution and the contribution made by their teachers to the development of science and technology.

We must also consider that each student has his own aspirations and peculiarities. Some of them, for example, like to build and repair instruments and automatic machinery with their own hands, others dream of designing work, a third one is engrossed by mathematical analysis and so on. Therefore student participation in scientific work must assume the most variegated forms.

Therefore our institute established Student Design Bureaus in a number of the departments, to accommodate students who are interested in drafting and designing work; here the students design new buildings, equipment and machinery on assignment from the production enterprises. Members of the Student Design Bureaus also participate in the building of the structures they designed. The animal husbandry buildings in the Yekaterinovskiy rayon of the Sratovskaya oblast were designed and are under construction in that manner.

A design construction group was created and attached to the Department of Building Construction, which will work in coordination with the designers. A student instrument-construction bureau for measuring and automatic instruments is active in the Department of Instrument Building. A bureau of automation of motor transportation processes was established for student motoring enthusiasts, which develops and produces new automatic devices on its own. Tens of students are working as laboratory assistants for the departments, who are engaged in conducting research in accordance with economic agreements. Approximately 1,100 students are working in the scientific circles of the Institute.

It appears to us that the greatest results are yielded by experiments conducted by the scientific workers and the students in conjunction with the production workers at the plant laboratories and with the operating equipment at the enterprises. The scientific workers and the students profit by work together with the personnel of brigades of communist labor in the elaboration of rational suggestions and in the perfection of technological processes.

To speak of a further development and deepening of business ties between science and production is to also talk of training cadres of the highest skill levels. At the same time we still have a great number of serious inadequacies in that respect. The inadequacy of the scientific laboratory facilities, especially at the high educational institutions located on the periphery in addition to a sharp lack of scientific cadres of the highest skill level such as doctors of science and professors at many of the educational institutions, lead to a situation where the department of the higher educational institutions are not conducting large scientific-research projects, engage in a very few fundamental theoretical investigations and fail to utilize the latest means for conducting experiments. As a result the education of doctors and candidates of science occupies a considerable length of time.

In order to improve the matter of the training of scientific cadres and first of all of the cadres of the highest skills, in our opinion, it is necessary to afford the instructors at the higher educational institutions an opportunity to participate in the solution of the more important

scientific problems by means of well equipped research laboratories with a sufficient number of experienced researchers and auxiliary personnel. This may be attained through amalgamating the work conducted by the scientific-research organizations and higher educational institutions. In cities where branch scientific-research institutes do not exist, it is necessary to create research laboratories at the various departments of branches of the leading scientific research institutes with the proper equipment and personnel.

In addition to the necessity of expanding the volume of scientific research accomplished in accordance with economic agreements it is also necessary to assure that the departments of the higher educational institutions conduct research and theoretical investigations which are financed by the Ministry of Higher and Secondary Specialized Education USSR or by the Academy of Sciences. For that purpose it is necessary to assure that the departmental staff includes the necessary number of junior scientific workers and laboratory assistants.

Each candidate for an academic degree must be a responsible executor of scientific work, which is accomplished either through an economic agreement with an enterprise, where the results of such research will be implemented, or according to a plan of a leading scientific organization with financing according to an estimate.

It is feasible to include subjects for doctoral dissertations into a plan of scientific research by the higher educational institutions with a mandatory financing along with the provision of necessary equipment and material.

It is necessary to organize a training program for instructors from the peripheral higher educational institutions at the large higher educational institutions in the application of the latest experimental research methods. It is also desirable to provide the higher educational institutions with experimental samples and machines that are first to come off the assembly lines, as well as lathes, instruments, etc., for comprehensive testing (also for the training of students and instructors).

It appears to us that the realization of these suggestions could be conducive to a more rapid growth of scientific cadres, to the development of progressive Soviet science, and the consolidation of its ties with production.

VISIT OF N. S. KHRUSHCHEV IN NOVOSIBIRSK

Following is the translation of an unsigned article in Ekonomicheskaya Gazeta, 11 March 1961, page 1.

NOVOSIBIRSK, 10 MARCH. (TASS).

Comrade N. S. Khrushchev, First Secretary of the Central Committee CPSU, Chairman of the Council of Ministers USSR, who took part in a

conference of leading agricultural workers from Siberia, today visited the little scientific city of the Siberian Department of the Academy of Sciences USSR. He was accompanied by G. I. Voronov, Deputy Chairman of the RSFSR Bureau of the Central Committee CPSU and by D. S. Polyanskiy, Chairman of the Council of Ministers RSFSR.

Over a period of time slightly over three years the first scientific research institutes, blocks of comfortable homes, schools, stores and cafeterias were built in the picturesque pine forest on the shore of the "Obskoye More" -- a reservoir of the Novosibirskaya Hydroelectric Power Plant. The little city is inhabited by six thousand scientific workers and their families. A large number of scientists who expressed the desire to work in Siberia have already migrated to Novosibirsk from Moscow, Leningrad and other cities. At the present time the Department has over 2,500 scientific collaborators including 119 active members of the Academy, corresponding members and doctors of science. The personnel is being rapidly supplemented with talented local scientific youth. Last year 19 persons presented their doctoral dissertations and 32 persons their candidate's dissertations. Over 60 dissertations have been prepared for presentation in 1961.

N. S. Khrushchev along with G. I. Voronov and D. S. Polyanskiy inspected the exhibit which told about the first scientific achievements made by the Siberian Department. Its chairman, Academician M. A. Lavrent'yev and the directors of the institutes acquainted the guests with the content and the principal directions taken by the scientific researchers.

Along with work on important theoretical problems research which is of considerable national economic significance is also conducted here.

An outstanding Soviet scientist, Academician S. L. Sobolev reported on the projects occupying the Mathematics Institute, where a large computing center was constructed. N. S. Khrushchev visited that center and observed the electronic computing machine in operation.

G. I. Budker, director of the Institute of Nuclear Physics, and a corresponding member reported that a well neutron generator was designed and built at the Institute. This instrument determines the presence of oil or gas beyond the walls of the well. Such a generator has already been tested at the oil fields and yielded good results.

An impulse water thrower "IV-1" was quite recently successfully tested at Kuzbass. It opened up widescale possibilities for the hydromining of coal. The unit that was built at the Institute of Hydrodynamics is 20 times more powerful than the usual hydraulic monitors.

Considerable interest was manifested by the guests in the material pertaining to the complex work accomplished by the biologists and chemists in the struggle against midges. The scientists created effective chemicals for their extermination. An experimental installation capable of spraying with aerosol at a rate of 10 thousand hectares per hour was also constructed. N. S. Khrushchev recommended a more rapid introduction of these measures, which furnish reliable protection for people and agricultural animals and destroy field and forest pests, into industrial production.

At the stand of the Institute of Experimental Biology and Medicine, the guests were shown a colored movie about a heart operation which was performed in the clinic of this Institute.

Professor Ye. N. Meshalkin, a recipient of the Lenin Prize, reported that he and his students have performed over 2,000 heart operations, 500 of which took place in Siberia. The Institute developed 21 new types of heart and lung operations.

Data on the work of the Siberian scientists in the field of theoretical and applied mechanics, automation and electrometry, mining, radio physics and electronics, transportation and power engineering, organic and inorganic chemistry, geology and other sciences were extensively represented at the exhibit.

At the stand of the Institute of Economics and the Organization of Industrial Production, N. S. Khrushchev made several remarks intended for the economic workers. Many economists still have inadequate ties with the activities of the kolkhozes and sovkhozes. Their work does not always deal with some of the more urgent practical problems. The scientists, for example, do not give enough help to the farms in working out problems pertaining to the implementation of a system of supplementary remuneration of labor for the overfulfillment of assignments in agriculture and cattle breeding, and in the realization of the principle of material interest.

G. A. Prudenskiy, the director of that institute, stated that the economic scientists will make the necessary conclusions on the basis of these remarks and will consolidate the ties between economic science and agricultural production.

N. S. Khrushchev was interested in the progress of construction in this little city and took a trip through the area.

MEETING OF MOSCOW SCIENTISTS

Following is the translation of an unsigned article in Ekonomicheskaya Gazeta, 22 March 1961, page 1.

Science and technological progress have evolved into concepts that are indissolubly associated with the creation of a material-technical basis of communism. The many thousands of scientists, engineers and technicians are forging ahead in the forefront of the builders of communism. This was once again demonstrated yesterday at a meeting of scientists and engineering-technical workers of Moscow, organized by the Moscow City Committee CPSU.

The most outstanding scientists as well as workers from the branch institutes and enterprises gathered at the Hall of Columns of the Union House, where the meeting took place, for the purpose of discussing the tasks that are confronting them in connection with preparations for the 22nd Congress CPSU.

P. N. Demichev, First Secretary of the Moscow City Committee CPSU, in opening the meeting, stressed the leading role occupied by science in the resolution of the tasks pertaining to technical progress in all fields of material production.

Academician Ye. K. Fedorov, Chief Scientist Secretary of the Presidium of the Academy of Sciences USSR told the audience about the tremendous achievements made by Soviet science, which reached a first place position in the world in many fields of knowledge. The scope of scientific research is illustrated by the fact that over a million people are involved in it.

However, the speaker pointed out, we still fail to satisfy the needs, which are promulgated by the rapidly developing national economy. We must provide a more operative type of assistance to industry, transportation, and agriculture in the development of new progressive methods, and strive for the most rapid implementation of scientific achievements into production while at the same time continuing to look ahead, and outlining a perspective for development.

The participants of the conference welcomed the announcement by A. P. Vladziyevskiy, Director of the Experimental Metal Cutting Lathes Scientific Research Institute, who reported that the staff of the institute along with the enterprise workers undertook the task of creating automatic precision machines, which heretofore had to be purchased abroad, particularly in the USA. We are full of determination, said the speaker, to overcome the lag in this important field.

The Moscow scientists-agronomists obligated themselves to help grow an abundant harvest of corn over an area of not less than five million hectares. D. D. Berezhnev, Vice-President of the VASKhNIL (Vsesoyuznaya Akademiya Sel'skokhozyaystvennykh Nauk Imeni V. I. Lenina -- All-Union Academy of Agricultural Sciences imeni V. I. Lenin) reported that groups of specialists are at the present time being sent for that purpose to the various rayons of the country.

Academician I. G. Petrovskiy, Rector of the Moscow State University, dwelled on the role performed by the higher educational institutions in scientific-technical progress. The organization of new universities of culture, extension lectures, and counselling points will be a considerable contribution by the Moscow State University to the task of building communism.

Other speakers who appeared before the conference also expressed their fervent desire to make a contribution towards the creation of a material-technical basis of communism.

The conference of scientists adopted an appeal to all the scientists and engineering-technical workers of Moscow.

Our country is moving towards new, ever increasing successes in the development of the national economy, science, technology and culture as the time for the 22nd Congress CPSU is drawing close. The appeal states that our duty and the duty of all Soviet scientists, engineers and technicians is to expand these achievements further through their labor. Let us apply all our energy, knowledge and abilities to the execution of this esteemed and responsible task.

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